

Notice of Allowability

Application No.

09/915,058

Examiner

Hassan Phillips

Applicant(s)

KOBAYASHI, MASAYOSHI

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communications filed on August 23, 2006.
2. ☒ The allowed claim(s) is/are 1-13.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ian R. Blum (42,336) on November 7, 2006.

The application has been amended as follows:

Claim 6. (Currently Amended) A network system comprising:
a content-request source for requesting ~~content~~ content that is not urgent;
a server storing the content;
a plurality of routers,
at least one relay server for relaying the content adjacent to one of the routers;
and
wherein
the content-request source comprises:
a relay controller for notifying a relay server located on a path set by at least one router between the server and the content-request source, of identification of the content to be obtained wherein the path includes at least a number (N) of relay servers based on an urgency of content and, and the at least one relay server comprises:
a storage for storing the content;

Art Unit: 2151

and a controller controlling such that the content is received from upstream, is temporarily stored in the storage, and is transmitted to downstream via a number of relay servers not greater than N, wherein the relay server does not comprise a portion of the direct path between the server and the information-request source.

Claim 9. (Currently Amended) A network system comprising:

- a cache server for requesting content that is likely to be accessed by a terminal;
- a server storing the content;
- a plurality of routers,
- a plurality of relay servers, each of which is adjacent to a router, that relays the content; and

wherein

- the cache server comprises: a relay timing memory for storing a time slot suitable for relay operation for each of the relay servers;
- and a relay controller for notifying a relay server located on a path set by at least one router between the server and the cache server, of identification of the content to be obtained, in the time slot for the relay server wherein the path includes at least a number (N) of relay servers based on an urgency of content;
- and each of the relay servers comprises:
 - a storage for storing the content; and

a controller controlling such that when receiving the identification of the content to be obtained from the cache server, a request for transfer of the content is sent to an upstream-located server holding the content,

when receiving the content from the upstream-located server through the path in response to the request, the content is stored in the storage, and when receiving a request for transfer of the content from a downstream-located server, the content stored is transmitted to the downstream-located server through the path via a number of relay servers not greater than N, wherein the relay server does not comprise a portion of the direct path between the server and the information-request source.

Claim 11. (Currently Amended) A recording medium storing a first program for instructing a content-request computer to request content that is not urgent from a server computer storing the content through a network and a second program for instructing a relay server computer to relay the content, in machine-readable form,

the first program comprising the steps of:

making the content-request computer function as a relay controller for determining a number (N) of relay servers based on a degree of urgency of the information and relaying the information via a number of servers not greater than N;

notifying a relay server located adjacent to a router on a path set by at least one router between the server computer and the content-request computer, of identification of the content to be obtained, wherein the relay server does not comprise a portion of

Art Unit: 2151

the path between the server and the information-request source and a monitor packet is transmitted to the relay server to determine a delay time; and

the second program comprising the steps of:

making the relay server computer function as a controller controlling such that the content is received from upstream, is temporarily stored in a storage, and is transmitted to downstream.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance: neither the applicant's admitted prior art nor the cited references disclose applicant's invention as claimed. Specifically, neither the applicant's admitted prior art nor the cited references disclose determining the number of relay servers depending on the degree of urgency of the content and relaying the content via a number of relay servers not greater than the determined number of relay servers.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is 571-272-3940. The examiner can normally be reached on Mon-Fri (8am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HP/
11/7/06



KRISNA LIM
PRIMARY EXAMINER